

DAOYUAN LAI

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Run Run Shaw Building, The University of Hong Kong, Pokfulam Road, Hong Kong

EDUCATION

Ph.D. Student in Statistics

Sep. 2020 - Jun. 2024 (Expected)

Department of Statistics and Actuarial Science

Centre for PanorOmic Sciences, LKS Faculty of Medicine

The University of Hong Kong (HKU), Hong Kong, China

B.S. in Statistics

Sep. 2016 - Jun. 2020

Department of Statistics and Data Science

Southern University of Science and Technology (SUSTech), Shenzhen, China

COMPUTATION SKILLS

R, Matlab, Java, C++, HTML, CAD

RESEARCH EXPERIENCE

Prof. Zhaojian's Li's Lab (Pattern Recognition)

Jun. 2019 - Sep. 2019

(Remote) Michigan State University, Department of Mechanical Engineering

- Optimizing an efficient online identification methodology with a composite local model structure, conducting a convergence analysis of the algorithm.
- Identifying traffic system's parameters by implementing a decentralized sparse multitask recursive least square algorithm.

Prof. Guo-Liang Tian's Group (Computational Statistics and Optimization)

Sep. 2018 - Dec. 2018

SUSTech, Department of Statistics and Data Science

- Solving the skew-t-normal distribution's MLE by applying the MM algorithm with significantly less computational cost, compared with Newton's method.

Prof. Chenglong Fu's Lab (Computer Vision)

Jan. 2017 - Feb. 2017

SUSTech, Department of Mechanical and Energy Engineering

- Demonstrating environmental features' estimation by using the random sample consensus (RANSAC) algorithm and contributed to optimizing the prostheses' recognition.

RESEARCH PUBLICATION

- Zhang, K., Xiong, C., Zhang, W., Liu, H., **Lai, D.**, Rong, Y., & Fu, C. Environmental features recognition for lower limb prostheses toward predictive walking. *IEEE Transactions on Neural Systems and Rehabilitation Engineering*, 27(3), 465-476.

TEACHING

Teaching Assistant

Sep. 2019 - Present

- MAT7035 Computational Statistics (Graduate Course), SUSTech

AWARDS AND HONORS

- **Outstanding Graduates Honor**
Department of Statistics and Data Science, SUSTech, China May 2020
- **Outstanding Dissertation Honor**
Department of Statistics and Data Science, SUSTech, China May 2020
- **Outstanding Graduates Honor**
Shuli College, SUSTech, China May 2020
- **Dean's list**
Shuli College, SUSTech, China Jun. 2017
- **Outstanding Undergraduate Scholarship of SUSTech**
SUSTech, China Jun. 2017, 2018, 2019